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## REMARKS

### Status of the Claims

Claims 1-9 and 12-41 are pending herein, claims 10 and 11 having been cancelled above without prejudice or disclaimer, and claims 33-41 having been added.

Claims 1, 17, 21 and 26 have been amended above. No new matter is introduced, as support for the amendments to claims 1, 17 and 21 are found, for example, in original claims 10 and 11, and as support for the amendment of claim 26 is found, for example, in original claim 1.

Claims 33-41 are added by the above amendment. No new matter is introduced, as support for new claims 33-37 can be found, for example, in paragraphs [0037] to [0043] and [0033] of the specification, and as support for new claims 38-41 can be found, for example, in original claims 6, 13-15 and 26.

### Rejection of claims 1, 3-5, 16, 17 and 26 under 35 U.S.C. 102(b)

Claims 1, 3-5, 16, 17 and 26 are rejected under 35 U.S.C. 102(b) as anticipated by Rogers (U.S. Patent No. 6,081,071). The Applicants respectfully traverse this rejection and its supporting remarks.

Of claims 1, 3-5, 16, 17 and 26, only claims 1, 17 and 26 are independent. Independent claims 1 and 17, however, have been amended to include the limitations of claim 10 or claim 11, which are not rejected as anticipated by Rogers. Hence, it is respectfully submitted that claims 1 and 17 are not anticipated by Rogers. Claims 3-5 and 16 depend from claim 1 and are thus not anticipated by Rogers for at least the same reasons.

With respect to presently pending independent claim 26, this claim is reproduced below for the Examiner's convenience:

26. (Original) A flexible OLED device structure comprising:  
a flexible substrate;  
a flexible OLED display area comprising a plurality of active pixels disposed over said substrate, each of said plurality of active pixels comprising an anode region, a cathode region and a light-emitting region;  
a flexible cover over said OLED display area, wherein at least one of said flexible substrate and said flexible cover permits transmission of light from said



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plurality of active pixels to an outer environment, and wherein said flexible cover and said flexible substrate cooperate to restrict transmission of oxygen and water vapor from said outer environment to said OLED display area; and

a patterned getter layer disposed between said flexible substrate and said flexible cover, said patterned getter layer being configured so as to substantially avoid obstructing said transmission of light from said plurality of active pixels to said outer environment.

To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.” *Brown v. 3M*, 265 F.3d 1349, 60 USPQ2d 1375 (Fed. Cir. 2001).

The Office Action alleges that “Rogers discloses (column 5 lines 60-65, column 8 claim 9) the packaged electroluminescent apparatus includes flexible (plastic) cover and substrate (plastic circuit boards)”, apparently based on the presence of the term “plastic” in Rogers. This assertion, however, is incorrect for at least two reasons.

First, Rogers teaches the use of the plastic circuit boards as covers, rather than as substrates. Moreover, Rogers clearly teaches that the substrate and cover for the electroluminescent device are constructed from rigid materials. See. e.g., the following excerpts from Rogers:

Cover 11 is generally comprised of a cover sheet 20 constructed of *glass or a substantially similar and suitable substantially rigid and transparent material....*

Col. 3, lines 4-6 (emphasis added).

... [P]rovided is an organic EL apparatus 10 of a type having EL device 13 carried by *substrate 12 preferably constructed of glass or other similar and suitable substantially rigid and transparent material*. Cover 11 is provided and includes *a cover sheet 20 constructed of glass, plastic or other similar and suitable substantially rigid and transparent material....*

Col. 3, lines 61-67 (emphasis added). Note further that the materials described in claim 9 and at col. 5, lines 63-65 of Rogers (glass, plastic, stamped metal foils, plastic circuit boards, ceramic cans, machined metal cans, and semiconductor substrates) are consistent with Rogers’ teachings concerning the requirement of a rigid material. For example, rigid plastic materials are common and readily available.



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Moreover, Rogers' device is required to be rigid, for example, because Rogers teaches that the "[cover] sheet 20 is .. adhesively sealed with glass substrate 12 *in substantially parallel relation* relative substrate 12..." See, e.g., col. 3, lines 45-47 (emphasis added). See also Rogers' Figures.

For at least these reasons, it is respectfully submitted that Rogers does not disclose the flexible OLED device structure of claim 26 and, indeed, teaches away from the same.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 3-5, 16, 17 and 26 under 35 U.S.C. 102(b) as anticipated by Rogers are respectfully requested.

**Rejection of Claims 9-11 under 35 U.S.C. 103(a)**

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers. The Applicants respectfully traverse this rejection and its supporting remarks.

For example, in order to establish a *prima facie* case of obviousness under 35 U.S.C. 103(a), there must be some suggestion or motivation to modify/combine the references of record. See MPEP §2143. The teaching or suggestion to create the claimed combination must be found in the prior art, not in applicant's disclosure. *Id.*

With respect to claim 9, however, the Office Action asserts that "[i]t would have been obvious ... to have the getter layer on the cover narrow enough for the desiccant to work without providing resistance when the OLED device structure is flexed during normal service." However, the Office Action does not provide evidence of any motivation or suggestion to modify Rogers in this fashion. In fact there is no such motivation or suggestion, because Rogers teaches the use of rigid devices as noted above and thus would not be concerned with OLED device flexure.

Similarly, with respect to the contents of claims 10 and 11 (which are now incorporated into independent claim 1), the Office Action merely argues that "[i]t would have been [an] obvious matter of design choice to make the getter layer narrow by comprising a plurality of narrow bands and small dots since applicant has not disclosed this getter layer solves any stated problem or for any particular purpose and it appears that the invention would perform equally well with the getter layer as disclosed by Rogers."



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The applicants respectfully disagree. Rogers provides no suggestion or motivation to provide a plurality of narrow bands of getter material or a plurality of small dots of getter material, and it would not have been "an obvious matter of design choice to make the getter layer narrow." Indeed, absent motivation to the contrary, it is submitted that one of ordinary skill would attempt to maximize the getter material present and thus would *not* resort to patterned getter layers comprising a plurality of narrow bands and small dots, which would tend to reduce the amount of getter present.

In addition, it is submitted that such patterned getter layers would indeed perform in a manner superior to the getter layer disclosed by Rogers in at least one respect—the ability to prevent the patterned getter layer from cracking when the OLED device structure is flexed. As noted above, however, Rogers teaches the use of rigid devices, so this advantage is irrelevant to Rogers' devices.

For at least these reasons, it is respectfully submitted that claim 9 and previously pending claims 10 and 11 are patentable over Rogers.

Claims 10 and 11 have been cancelled, their subject having been introduced into claim 1. Hence claim 1 is patentable over Rogers for at least the same reasons as are previously pending claims 10 and 11.

Accordingly, reconsideration and withdrawal of the rejection of claims 9-11 as being unpatentable over Rogers are respectfully requested.

**Rejection of Claims 2, 12-15, 19 and 20 under 35 U.S.C. 103(a)**

Claims 2, 12-15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Duggal (U.S. Pat. No. 6,465,953) and, with respect to claim 20, in further view of Liu et al. (U.S. Patent No. 5,849,442). The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claim 1 (and hence independent claim 17 as well) are patentable over Rogers, at least because Rogers does not teach or suggest an OLED device structure comprising a patterned getter layer that further comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material.

Neither Duggal, which describes plastic substrates that are *filled with* particles of a getter material (see, e.g., col. 3, lines 18-27 of Duggal), nor Liu et al., which describes a



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method of manufacturing a flat panel *field emission display* (see, e.g., title and abstract of Liu et al.), make up for the above noted deficiencies in Rogers. Hence, claims 1 and 17 are patentable over the combination of Rogers, Duggal and Liu et al.

Claims 2, 12-15, 19 and 20, which depend from claim 1 or claim 17, are therefore patentable over Rogers, Duggal and Liu et al. for at least the same reasons as are claims 1 and 17.

Accordingly, reconsideration and withdrawal of the rejection of claims 2, 12-15, 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Duggal are respectfully requested.

**Rejection of Claims 7, 8, 18 and 28-31 under 35 U.S.C. 103(a)**

Claims 7, 8, 18 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Bernius et al. (U.S. Patent No. 6,383,664). The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claims and 17 are patentable over Rogers, at least because Rogers does not teach or suggest an OLED device structure comprising a patterned getter layer that further comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material.

As also noted above, independent claim 26 is patentable over Rogers, at least because Rogers does not teach or suggest a flexible OLED device structure that comprises a patterned getter layer.

Bernius et al., which concerns neither flexible OLED device structures nor device structures comprising a patterned getter layer that further comprise a plurality of narrow bands of getter material or a plurality of small dots of getter material, does not make up for the above noted deficiencies in Rogers. Hence, independent claims 1, 17 and 26 are patentable over Rogers, Duggal and Liu et al.

Claims 7, 8, 18 and 28-31, which depend from claim 1, claim 17 or claim 26, are therefore patentable over Rogers and Bernius et al. for at least the same reasons as are claims 1, 17 and 26.



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Accordingly, reconsideration and withdrawal of the rejection of claims 7, 8, 18 and 28-31 under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Bernius et al. are respectfully requested.

**Rejection of Claims 6 and 32 under 35 U.S.C. 103(a)**

Claims 6 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Watkins et al. (U.S. Patent No. 5,931,713). The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claim 1 is patentable over Rogers, at least because Rogers does not teach or suggest an OLED device comprising a patterned getter layer that further comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material.

As also noted above, independent claim 26 is patentable over Rogers, at least because Rogers does not teach or suggest a flexible OLED device structure comprising a patterned getter layer.

Watkins et al., which the Office Action proposes combining with Rogers, is taken from art that is far removed from the OLED device structures (and is even further removed from flexible OLED device structures). For example, the devices of Watkins et al. are field emission displays, which are vacuum-sealed devices in which electrons are emitted from a cathode, striking a phosphor coated anode, whereupon light is produced. See, e.g., col. 1, lines 6-17. The devices of claims 1 and 26, on the other hand are organic optoelectronic devices, which are not vacuum devices, and which are not based on electron emission.

Moreover, Watkins et al. teaches that the getter should be placed in the space between the anode and cathode, and thus is integral with the active region of the device. See, e.g., col. 1, lines 29-31. On the other hand, in the device of Rogers, the desiccant is placed on the cover sheet 20. See, e.g., col. 4, lines 7-10. Thus, in contrast to the device of Watkins et al., the getter region in the device of Rogers is *not* provided in the active region of the device between the anode and cathode. Indeed, if one were to combine the references and place the getters/desiccants of Watkins et al. or Rogers between the anode



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and cathode of an OLED or organic optoelectronic device, harmful consequences would result.

For at least these reasons, independent claims 1 and 26 are patentable over Rogers and Watkins et al.

Claims 6 and 32, which depend from claim 1 or claim 26, are therefore patentable over Rogers and Watkins et al. for at least the same reasons as are claims 1 and 26.

Accordingly, reconsideration and withdrawal of the rejection of claims 6 and 32 under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Watkins et al. are respectfully requested.

**Rejection of Claim 27 under 35 U.S.C. 103(a)**

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Sheats et al. (U.S. Patent No. 6,146,225). The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claim 26 is patentable over Rogers, at least because Rogers does not teach or suggest flexible OLED device structures comprising a patterned getter layer, and in fact teaches away from the use of flexible OLED device structures.

Sheats et al, which teaches the inclusion of a small amount of a getter compound *within* a layer associated with a transparent, flexible permeability barrier of an organic electroluminescent device (see, e.g., col. 5, lines 31-41), does not make up for the above noted deficiencies in Rogers.

For at least these reasons, claim 26 is patentable over Rogers and Sheats et al.

Claim 27, which depends from claim 26, is therefore patentable over Rogers and Sheats et al. for at least the same reasons as is claim 26.

Accordingly, reconsideration and withdrawal of the rejection of claim 27 under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Sheats et al. are respectfully requested.



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**Rejection of Claims 21-24 under 35 U.S.C. 103(a)**

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernius et al. and Rogers. The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claim 1 is patentable over Bernius et al. and Rogers, at least because these references neither teach nor suggest an OLED device structure comprising a patterned getter layer that further comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material.

Claim 21, which, as amended, is presently directed to an organic optoelectronic device structure having a patterned getter layer that comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material, is patentable over Bernius et al. and Rogers for analogous reasons.

Claims 22-24, which depend from claim 21, are therefore patentable over Bernius et al. and Rogers for at least the same reasons as is claim 21.

Accordingly, reconsideration and withdrawal of the rejection of claims 21-24 under 35 U.S.C. 103(a) as being unpatentable over Bernius et al. in view of Rogers are respectfully requested.

**Rejection of Claim 25 under 35 U.S.C. 103(a)**

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bernius et al. and Rogers and further in view of Watkins et al.. The Applicants respectfully traverse this rejection and its supporting remarks.

As noted above, independent claim 21 is patentable over Bernius et al. and Rogers, at least because these references neither teach nor suggest an organic optoelectronic device structure comprising a patterned getter layer that further comprises a plurality of narrow bands of getter material or a plurality of small dots of getter material.

As noted above, Watkins et al., which the Office Action proposes combining with Bernius et al. and Rogers, is taken from art that is far removed from the optoelectronic device art. For example, the devices of Watkins et al. are field emission displays, which are vacuum-sealed devices in which electrons are emitted from a cathode, striking a



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phosphor coated anode, whereupon light is produced. See, e.g., col. 1, lines 6-17. Optoelectronic devices, on the other hand, are not vacuum devices, and are not based on electron emission. Hence, independent claim 21 is patentable over Bernius et al., Rogers and Watkins et al.

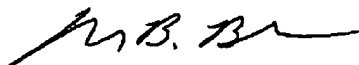
Claim 25, which depends from claim 21, is therefore patentable over Bernius et al., Rogers and Watkins et al. for at least the same reasons as is claim 21.

Accordingly, reconsideration and withdrawal of the rejection of claim 25 under 35 U.S.C. 103(a) as being unpatentable over Bernius et al. and Rogers in view of Watkins et al. are respectfully requested.

### **CONCLUSION**

Applicants submit that claims 1-9 and 12-41 are in a condition for allowance, early notification of which is earnestly solicited. The Examiner is encouraged to telephone the Applicant's attorney at (703) 433-0510 in order that any outstanding issues be resolved.

Respectfully submitted,



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